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②國玄東華大學

教學計劃表 Syllabus

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	課程名稱(中文) Durse Name in Chinese 財務工程				學年/學期 Academic Year/Seme	ester	112/1		
	課程名稱(英文) Course Name in English Financial Engineering								
科目代碼 Course Code		ECM7100	系級 Department 碩士 & Year		開課單位 Course-Offering Department		經濟學系		
	修別 Type	選修 Elective	學分數/時月 Credit(s)/Hou		3.0	3.0/3.0			
授課教師 Instructor									
	先修課程 Prerequisite								
		課	程描述 Cours	e Descri	iption				
This course intends to introduce the student to the applications in financial economics field, and analytical tools applicable to analyze securities, particularly using R.									
		課	程目標 Cour	se Objec	ctives				
This course deals with portfolios of financial assets such as stocks and bonds. It explores the basic principles underlying rational portfolio choice and what these mean for prices determined in the marketplace.									
	Corr	程目標與系專業能 力相關性 relation between urse Objectives and Dept.'s Education Objectives							
A Mathe	數理分析能力:通曉經濟學的進階理論技巧,應用數學與賽局解決經濟議題的能力。 Mathematical analysis skills: Mastering in intermediate application of mathematical theories and game theory in analyzing economic issues.								
B 分析。	實證經濟分析能力:通曉經濟學的進階實證技巧,善用資訊科技進行資訊蒐集、資料統計與計量								
C Thoro	微觀經濟之闡釋能力:通曉進階個體經濟學相關的理論與應用。Microeconomic perspective:								
D Thoro	宏觀經濟之闡釋能力:通曉進階總體經濟學相關的理論與應用。Macroeconomic perspective:								
E opporin bus	自我調整適應社會之能力:具備適應現代社會的學養以及就業能力。Employment								
溝通表達能力:思路清晰,有能力與人溝通並撰寫進階專業研究報告。Communication skills: F Having a clear mind and capability in writing an intermediate professional academic report.									
圖示說明Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated									
授課進度表 Teaching Schedule & Content									
週次Week		內容 Subject/Topics				備註Remarks			
1	Introduction: A	nalytical thinking and introduction to R							
	T , 1 ,	D							

2

Introduction to R

3	Financial statistics							
4	Time series I							
5	Time series II							
6	Equity I							
7	Equity I I							
8	Fixed income							
9	Midterm project presentation							
10	Portfolio I							
11	Portfolio II							
12	Derivatives I							
13	Derivatives II							
14	Banking							
15	Risk management I							
16	Risk management II							
17	Dependence							
18	Project presentation							
	教學策略 Teaching Strategies							
✓ 課堂講授 Lecture ✓ 分組討論Group Discussion 參觀實習 Field Trip								
其他Miscellaneous:								
教學創新自評 Teaching Self-Evaluation								
創新教學(Innovative Teaching) 問題導向學習(PBL) 團體合作學習(TBL) 解決導向學習(SBL)								
問題導向學習(PBL) ■ 團體合作學習(TBL) 解決導向學習(SBL) ■ 翻轉教室 Flipped Classroom ■ 磨課師 Moocs								
社會責任(Social Responsibility)								
在實責任(Social Responsibility) 在地實踐Community Practice 產學合作 Industy-Academia Cooperation								
跨域合作(Transdisciplinary Projects)								
跨界教學Transdisciplinary Teaching 跨院系教學Inter-collegiate Teaching								
■ 業師合授 Courses Co-taught with Industry Practitioners								
其它 other:								

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	配分比例 Percentage	多元評量方式 Assessments							
Items		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	10%		~						
期中考成績 Midterm Exam	35%		~		>				
期末考成績 Final Exam	35%		~		~				
作業成績 Homework and/or Assignments	20%		~						
其他 Miscellaneous									

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目(書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

No required textbook. Handouts will be used in the class.

課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

其他補充說明(Supplemental instructions)